

APPENDIX A

PUBLIC COMMENT SUMMARY AND AGENCY RESPONSES

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A.1 READER'S GUIDE

HOW IS THIS APPENDIX ORGANIZED?

The Response to Comments contains three main sections. The first section provides a brief introduction and an overall summary of the process of soliciting, receiving and evaluating comments on the Draft EIS. Section 1 also includes a table to assist the reader in finding specific comment letters, facsimiles, and e-mails (henceforth, collectively referred to as comment letters). Table A.1 contains a listing of the comment letters received on the Draft EIS. Each comment letter received was assigned an alphanumeric identification code. Additional information in Table A.1 includes the name of the applicable organization or individual, address, date of receipt, and a listing of substantive comments identified for each comment letter. Section 2 contains facsimiles of letters from Federal, State, and local agencies. All other comment letters are part of the project files and are available to the public upon request. Section 3 contains comments arranged by category or resource discipline, and the agency response to each comment. Please note that Section 3 responds to substantive comments in all the letters received, not just the comment letters found in Section 2.

HOW DO I KNOW THE NATURAL RESOURCES CONSERVATION SERVICE RECEIVED MY LETTER?

All letters received by the NRCS during the comment period for the Draft Environmental Impact Statement (DEIS) are listed in Table A.1. If your name appears in Table A.1, your letter was received. This table can be used to find your name (or organization's name), the identification number of your letter, and the comments that received responses. The identification number can also be used to locate responses to your letter in Section 3.

HOW DO I FIND MY COMMENT?

A specific comment letter and associated responses can be located by looking up the author(s) of that letter in Table 1, then using its assigned identification number to locate the associated comments in Section 3 of this document.

WHAT OTHER COMMENTS WERE MADE THAT WERE SIMILAR TO MINE?

Similar comments made with respect to resource disciplines are grouped together in the responses in Section 3. In some cases very similar comments were combined so that there would not be too much redundancy in Section 3.

WHAT WAS THE RESPONSE TO MY COMMENT?

Agency responses to the identified comments are grouped by resource discipline in Section 3.

HOW DO I FIND WHAT COMMENTS ANOTHER INDIVIDUAL, GROUP, ORGANIZATION HAD?

Table A.1 contains a listing by agency, group, and individual. Once the agency, group, or individual is located in Table A.1, the comment can then be identified in Section 3. A listing of the comment letters containing that comment in Section 3 also follows each comment.

A.2 PUBLIC COMMENT SUMMARY

The main function of this appendix is to provide the NRCS's response to comments received on the DEIS. The following discussion explains how the comments were solicited on the DEIS and how those comments were processed. A detailed list of persons, organizations, or agencies submitting comments on the Draft EIS is presented in this section. The Reader's Guide at the front of this appendix has also been provided to assist the reader in understanding how to find their comments and the agency responses to their comments.

The comments on the DEIS that were used to prepare the Final EIS followed the National Environmental Policy Act (NEPA) (1969, as amended) and a process established by the Council on Environmental Quality (CEQ) regulations, which provide that agencies must "(m)ake diligent efforts to involve the public in ... NEPA procedures" (40 CFR 1506.6(a)). Although this appendix deals primarily with the comments received on the Draft EIS, the reader should also be aware that public involvement preceded the release of the DEIS, which included comments on the scope of issues that should be addressed in this EIS document.

PUBLIC SCOPING

Preparation of the DEIS that preceded this Final EIS included soliciting comments from other agencies and the public to determine the scope of the document. NEPA (1969, as amended) requires that early public involvement in the EIS process be used to identify issues and address any potentially significant concerns related to the proposed action. Public and agency involvement continued in various ways throughout this EIS process. The purpose and need, identification of important issues and concerns by the public and other agencies, and description of the proposed action are discussed in Chapters 1 and 2 of the Final EIS. Public and agency input was extremely important in formulating the scope and content of the DEIS. However, scoping prior to the preparation of the DEIS should not be confused with the comments received on the Draft EIS.

PUBLIC AND AGENCY MEETINGS

Following the release of the DEIS, a public meeting was held in Cedar City, UT on March 10, 2005 to explain the NEPA process, to receive comments regarding the DEIS, and to answer any questions related to the proposed action and alternatives.

COMMENT PROCEDURE

The Notice of Availability for the NRCS's Coal Creek Flood Control and Parkway Project EIS was published in the Federal Register on February 11, 2005, beginning the 45-day comment period.

Those receiving a full or summary copy of the Draft EIS and/or attending the public meeting were given instructions on how to provide comments and where they should be sent. They were advised that comments should be as specific as possible in terms of adequacy of the DEIS and/or merits of the alternatives discussed. Individuals that submitted oral comments either by phone or at the public meeting were advised that in order for the comment to be considered and included in the document, it would have to be submitted in writing. Comment forms were provided at the March 10th public meeting.

All comment letters were copied and sent to a third-party consultant where they received an alphanumeric identification code and were placed in the project planning record in alphabetic order. The full text of each comment letter, facsimile, or e-mail received from individuals or groups are in the NRCS's Coal Creek Flood Control and Parkway Project EIS project files at the USDA - NRCS Office in Salt Lake City, Utah, and may be viewed upon request. Letters received from Federal, State, and local agencies and elected officials are included in Section 2 of this appendix. Comments from each response were identified and organized into resource or discipline categories. Those comments that were identical or very similar were grouped together under a summary of the issue or concern raised. Section 3 includes each comment or summary of comments organized into theme categories, a listing of the comment letter(s) containing that specific comment, and the associated response to the comment.

Consistent with NEPA regulations (40 CFR 1503.4(b)), this document focuses on substantive comments on the DEIS. Substantive comments include those that challenge the information in the Draft EIS as being accurate or inaccurate, or that offer specific information which may have a bearing on the decision. Comments that merely express an opinion for or against the proposed action were not identified as a comment requiring a response. In cases where the comment was substantive but appeared to indicate that information in the DEIS was either misunderstood or unclear, a response was prepared to clarify the information. Resource specialists from the third-party consultant prepared draft responses to each substantive comment, which were then reviewed and approved by NRCS personnel and subsequently prepared in the form found in this Final EIS.

Table A.1 provides an index of agencies, organizations and individuals that commented on the DEIS. It also includes a letter code, name of commenter or organization, date the comment letter was received by the NRCS, and a list of numbered comments contained in the respective letter.

Table A.1. List of Respondents

ID	Respondent(s)	Received	Delivered	Comments
M001	Jim Case	12/13/05	Comment Card	No substantive comments
M002	Anita Bell	12/13/05	Comment Card	No substantive comments
M003	Emma Smith	12/13/05	Comment Card	No substantive comments
M004	Confidentiality Requested	12/13/05	Comment Card	WT-14
M005	Bill Lund	12/13/05	Comment Card	WR-2
M006	Robert Dalton	12/13/05	Comment Card	No substantive comments
M007	No name – Mt. Towing/ Affordable Auto	12/13/05	Comment Card	AT-1, AT-2
I001	Robert E. Ogie	1/4/06	Email	CR-1
G001	Rai Vijai – USDOJ, Office of Environmental Policy and Compliance	1/9/06	Letter sent to NRCS	Asked for extension
B001	Phil Hirschi – North Field Company	1/9/06	Letter sent to NRCS	AT-17
G002	Larry Svoboda – EPA	1/17/06	Letter sent to NRCS	AT-3, AT-4, AT-5, AT-18, PN-1, PN-2, AQ-1, AQ-2, AQ-3, AQ- 4, AQ-5, AQ-6, AQ-7, SW-1, SW-5, WT-1, WT-2, WT-3, WL- 1
G003	James McMillan – COE	1/24/06	Email	AT-6, AT-7, AT-8, AT-9, AT-10, AT-11, AT-12, AT-13, AT- 14, GEN-1, GEN-2, GEN-3, GEN- 4, GEN-5, SW-2, SW- 3, SW-4, VG-1, VG-2, VG-3, WT-4, WT- 5, WT-6, WT-7, WT-8, WT-9, WT-10, WR-1, WL-2, WL-3
G004	Robert Stewart – USDOJ, Office of Environmental Policy and Compliance	1/20/06	Email	AT-15, AT-16, VG-2, VG-3, WT- 11, WT-12, WT-13, WL-4, WL- 5, WL-6

Public Comment Categories

Alternatives	AT	Riparian/Wetland Areas	WT
Air Quality	AQ	Soils/Watershed/Floodplains	SW
Cultural Resources	CR	Vegetation	VG
General	GN	Water Resources	WR
Purpose and Need	PN	Wildlife	WL

A.3 PUBLIC COMMENTS AND RESPONSES

ALTERNATIVES (AT) COMMENTS

AT-1

Comment: The pedestrian bridge should cross the creek approximately 300 ft east of the Main Street Bridge so that people could exit on the south side of the creek and meet the crosswalk.

Response: Your suggestion has been evaluated as part of the Final EIS.

AT-2

Comment: We oppose the proposed trail going under the Main Street Bridge because it could pose a safety hazard for pedestrians.

Response: The purpose of the proposed trail under the Main Street Bridge is to reduce hazards to pedestrians by allowing them to cross Main Street without being exposed to the heavy traffic that is typically experienced on this road (See Section 3.4.10.4 of the Draft EIS). The primary hazard to pedestrian traffic under the bridge would be during extremely high flow events, in which case the pedestrian walkway under the bridge would be closed to foot traffic. Section 3.10.5.1 of the Final EIS has been revised to include this clarification. In addition, the pedestrian trail under the bridge would be designed to maximize visibility and minimize opportunities for criminal activity.

AT-3

Comment: Further analysis or explanation is needed explaining why the Dual Channels element was considered but eliminated from detailed analysis. Additional data and/or background information needs to be provided that adequately explains why the element was dismissed. The current explanation stating that there is insufficient space to accommodate a new channel and that the environmental impacts would be extensive if insufficient.

Response: The Coal Creek channel traverses through an urbanized portion of Cedar City. Existing development exists adjacent to much of the existing Coal Creek Channel the project area. Some structures are located less than 50 feet away from the channel bank. There are no open corridors available to construct a second channel parallel to the existing Coal Creek Channel and the existing channel corridor lacks space to improve the existing channel in some areas. Constructing a parallel channel would require extensive property acquisition, demolition of existing structures, construction of new bridges, and relocation of existing utilities. Constructing a parallel channel would also disturb more land and increase the area that would have to be maintained. For these reasons, this option was considered to be economically infeasible and environmentally and socially undesirable. Section 2.3.1 was revised to include this information.

AT-4

Comment: Further analysis or explanation is needed explaining why the Flood Control Without Altering Stream element was considered but eliminated from detailed analysis. Additional data and/or background information needs to be provided that adequately explains why the element was dismissed.

Response: As mentioned in Section 2.3.9 in the Draft EIS, the advocate of this alternative did not provide sufficient detail for analysis of this alternative. However, the primary objectives defined in the purpose and need for the project include: constructing flood control improvements that will allow the Coal Creek channel to safely convey the 100-year flood from the mouth of the canyon to below I-15; and to stabilize channel reaches of the creek where significant erosion and deposition are occurring to protect existing development and infrastructure. These objectives cannot be accomplished without making modifications to the stream channel. Needed channel modifications include: widening narrow channel sections, narrowing wide channel sections, construction levees on banks with inadequate freeboard, increasing the channel gradient to improve flood conveyance capacity and reduce sediment deposition, and armoring the channel to reduce erosion hazards. The most feasible methods to accomplish the flood control objectives must include alterations to the creek channel. This is why this alternative was dismissed from further analysis.

AT-5

Comment: The Dual Channels and Flood Control Without Altering Stream elements would require much less hardening of the riparian area. These elements have been eliminated without documentation of analysis. Further analysis or explanation is requested.

Response: The reasons that the Dual Channel option was eliminated from further consideration are summarized in Response AT-3 and are reflected in the Final EIS. The reasons that Flood Control Without Altering Stream Elements were eliminated from further consideration are summarized in Response AT-4 and are reflected in the Final EIS.

AT-6

Comment: The Coal Creek channel should be as self-maintaining as possible. Final designs should incorporate analyses on bedload and flow velocity in addition to channel water capacity in order to assure minimization of excessive sedimentation or erosion and the need for frequent maintenance.

Response: The NRCS agrees. Proposed flood control improvements include stabilizing existing vertical creek banks and repairing eroded grade control structures in an effort to minimize channel bank and bed erosion in the project area. Stabilizing actively eroding areas will protect existing infrastructure and reduce the resulting sedimentation in segments of the channel downstream. One of the objectives of the project would be to design and construct a flood control channel that will maintain a fairly constant water depth and velocity throughout the project area so that the sediment carrying capacity of the creek

remains fairly constant until it reaches the vicinity of I-15. The gradient of the channel reduces significantly west of I-15. Sediment that may be transported from canyon sources would likely continue to settle out in as the velocity slows in response to the smaller gradient. A project objective would be to reduce the number of areas where channel maintenance is regularly required and, to the extent possible, design the project so that most of the channel maintenance activities associated with sediment removal would occur west of I-15.

AT-7

Comment: Although the alternative to limit development within the 100 and/or 500-year flood plain was eliminated from detailed analysis due to existing businesses and residences along the creek, limiting/eliminating further development in these flood zones would reduce future potential economic damage. Limiting or eliminating future development would also help maintain riparian resources in their current state.

Response: The existing riparian resources along Coal Creek are essentially located within the existing incised stream channel in all those locations where either residential or commercial development occurs (See Section 3.7 of the Draft EIS). Consequently, these resources are not affected by current development nor are unlikely to be impacted by future development. Additionally, limiting or eliminating future development outside of the existing stream channel but within the existing 100-year floodplain is outside the scope of decisions in this document (See Section 1.5 of the Draft EIS). The 100-year floodplain is based on the occurrence of the 100-year flow event and consequently does not necessarily equate to a jurisdictional Water of the U.S. This is particularly true for Coal Creek where the natural floodplain for the stream is essentially gone. Development can occur legally on private land within those portions of the Coal Creek 100-year floodplain that are outside of the existing stream channel as long as local zoning ordinances are met and appropriate flood insurance is purchased. The only way to regulate development within the existing 100-year floodplain would be to revise city and county zoning ordinances to prohibit such development. As stated in the comment, this may provide additional economic protection to future development, but would not prevent impacts to existing commercial and residential development. Consequently, this alternative would not meet the project purpose and need (See Sections 1.3 and 1.4 of the Draft EIS).

AT-8

Comment: In order for this EIS to serve as a 404 permitting document, a more clear design should be submitted specifying where riprap and vegetation techniques has been used.

Response: Final design of the modified stream channel and parkway, including engineered drawings of the channel stabilization structures and all revegetation will be provided to the U.S. Army Corps of Engineers with the completed application for a 404 Permit under the Clean Water Act. Additional details regarding channel design and stream stabilization methods have also been included in the Final EIS (see Appendix E).

AT-9

Comment: The Corps prefers the use of rock and/or bioengineering stream bank stabilization techniques over the use of cement and soil cement. The cement bank protection has the potential to be outflanked by the stream, leaving large hanging slabs of concrete. Rock bank protection is more flexible and may be replaced if it shifts from its original position.

Response: Except for some isolated areas near bridges and diversion structures, there are no plans to use concrete or soil cement to stabilize stream banks. The high velocities in the channel make compacted riprap the preferred method of bank stabilization.

AT-10

Comment: In Figure 2.2, the cross-section depicting the volume of the actual 100-year floodplain levels vs. the projected 100-year flood levels do not appear to be the same. This should be explained in the figure caption or in the text.

Response: Paragraphs 1 and 3 of Section 2.4.2.1 describes why the existing 100-year flood and projected 100-year flood have different water levels in Figure 2.2. The caption in Figure 2.2 has been revised in the Final EIS to clarify this distinction as well.

AT-11

Comment: Improvements to aesthetics and natural lighting in the culvert within the proposed trail system could be accomplished by building windows into the culvert wall facing the stream. The City of Provo proposed a similar project for a trail system along the Provo River.

Response: The culvert wall will be surrounded by earth, so windows would not be feasible (see Section 2.4.4.3).

AT-12

Comment: In Table 2.1, under Alternative B, Pkwy B1, Surface Water and Groundwater, the text should be changed “...effects would **be** beneficial and include decreased...”

Response: This revision has been included in the Final EIS.

AT-13

Comment: In Table 2.1, under Alternative B, Pkwy B1, Surface Water and Ground Water, the text in the 3rd paragraph should be changed to “...dewatering of an additional 1,600 **feet** of the Coal Creek channel...”

Response: This revision has been included in the Final EIS.

AT-14

Comment: Does any mitigation occur under the No-Action Alternative? In Section 3.7.3.2 of the document, the language used to discuss bank stabilization implies that revegetating areas where recent work has occurred with native trees and shrubs has or will take place. Please clarify the bank stabilization actions under this alternative.

Response: Mitigation is proposed for the No Action Alternative (See Sections 3.3.3.2; 3.4.3.2; 3.5.3.2; 3.6.3.2, 3.7.3.2, 3.8.3.2; 3.9.3.2; 3.10.3.2; and 3.11.3.2 of the Draft EIS.) Additional detail on the types of native vegetation, including trees, shrubs, and/or forbs, that could be used for this revegetation has been including in Section 3.7.3.2 of the Final EIS.

AT-15

Comment: The natural form and function of the river channel should be preserved as much as possible and riprapping of the entire banks should be minimized. In areas that will require bank stabilization and levee construction, bioengineering and revegetation should be incorporated into the stabilization designs.

Response: Coal Creek has the characteristics associated with an arid desert watershed as well as those of a mountain watershed. The function of Coal Creek is to convey runoff from the mountain watershed into the Cedar Valley. During nine months of the year the average monthly flow in the channel is less than 20 cfs. However, standard engineering and planning practices require that the channel have capacity to safely convey runoff from a cloudburst flood with a 1-percent chance of occurring in any given year (approximately 6,000 cfs). The natural form and function of the river would be preserved as much as possible. It is anticipated that the lower portions of the creek channel will be stabilized with compacted riprap. Where possible, bioengineering and revegetation methods will be used to stabilize bank sections above riprap.

AT-16

Comment: The Main Street Diversion should be rebuilt in its current location. This will allow water that would have been diverted 1,600 feet upstream of the diversion's current location to remain in the Coal Creek channel and maintain riparian and aquatic habitat. If the diversion is moved to a new location, an instream flow should be established for the 1,600 feet of channel downstream from the new diversion.

Response: Thank you for your comment.

AT-17

Comment: Under Alternative C, use one pipe from the sediment basin to 1045 N. instead of 3 pipes for distribution into the Four Irrigation Co.

Response: This alternative has been incorporated into the Final EIS for analysis and is included as an option in Section 2.4.4.1.

AT-18

Comment: Section 2.3.8, Extend Project West of I-15, was eliminated because the legislative appropriation for this project was secured to address flood concerns only within the city. This reason is not sufficient under NEPA (40 CFR 1500.1(a)) or CEQ's 40 Questions (2b) to eliminate an alternative from consideration.

Response: Additional detail on why this alternative was eliminated from detailed analysis has been added to Section 2.3.8 of the Final EIS. This detail includes information regarding the status of the Iron County's proposals to improve the channel west of I-15, as well as the independent utility of each of the projects.

AIR QUALITY (AQ) COMMENTS

AQ-1

Comment: The Executive Summary only discusses particulate matter. A brief discussion of all air pollutants considered should be included here.

Response: The requested information has been added to section S.9.1 of the Executive Summary.

AQ-1

Comment: The Executive Summary should note that increases in pollutant levels has been experienced relative to the base case or no action alternative, as was noted in Section 3.3. Pollutant trends are important in decision making for public disclosure.

Response: NRCS agrees that pollutant trends are important in decision making for public disclosure. Sections 3.3.1.4 and 3.3.3 that discuss existing air quality conditions do not indicate a trend of increasing pollutant levels.

AQ-3

Comment: The PSD program would consider 20 miles from a source to a Class 1 area a distance meriting further analysis. While emissions from this project do not necessarily merit further PSD analysis, this statement should be clarified.

Response: The last paragraph in Section 3.3.1.3 indicates why there is no concern regarding air quality impacts to these Class I areas. However, Section 3.3.4.1 in the Final EIS has been revised to clarify the short-term and relatively small amount of potential pollutants arising from the proposed project and why they are highly unlikely to have any impact on the air quality in Zion National Park or any other Class I airsheds.

AQ-5

Comment: In Section 3.3.4.1.1, an apparent printing error shows pollutant concentrations in grams per meter rather than grams per cubic meter.

Response: All air quality pollutant concentrations should be measured in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). This error has been corrected in the Final EIS.

AQ-6

Comment: Please clarify the method used to estimate emissions concentrations. If a method was not, please add a discussion of the method used to estimate concentrations and include the emission factors used.

Response: The methods and references for emission factors and equations used to estimate projected emissions concentrations for the action alternatives are described in Sections 3.3.4.1 of the Draft EIS. Specific references to where all this information can be found in detail are provided in Sections 3.3.4.1.1 and 3.3.4.1.2 of the Draft EIS.

AQ-7

Comment: The mitigation sections 3.3.3.2 and 3.3.4.2 should be more definite and state that the mitigation measures *has been* adopted in the ROD.

Response: The final decision on which mitigation measures have been required for the proposed project has been made by the lead agency Deciding Officer and has been disclosed and published in the ROD.

CULTURAL RESOURCE (CR) COMMENTS

CR-1

Comment: The old car bridge near the baseball diamonds at 200 North and 200 East should be saved.

Response: Thank you for your comment.

GENERAL (GEN) COMMENTS

GEN-1

Comment: Permit application packages submitted to the Corps or Division of Water Rights should contain specific operation and maintenance plans that follow project implementation. No such plans have been noted.

Response: These plans will be developed once the ROD indicates which alternative has been implemented. These plans will be submitted with the permit application at that time.

GEN-2

Comment: The length of the Study Area should be included up front and a “Project Area” section should be added to the Executive Summary. It is essential information for processing a Sec. 404 permit application.

Response: The Final EIS has been revised to include this information.

GEN-3

Comment: The meaning of the 2nd sentence in the 2nd paragraph in Section S.7.2.5 is confusing. It should be changed to “...deepen a section of the Quichapa Channel (for several hundred feet) between...”

Response: The Final EIS has been revised to clarify this statement.

GEN-4

Comment: In Table 2.1, under Alternative B, Pkwy B1, Wetland and Riparian, the last sentence of the 1st paragraph contradicts the 1st sentence in the same paragraph.

Response: The Final EIS has been revised to correct this contradiction.

GEN-5

Comment: In Appendix C, page C-10, the last paragraph should be changed to “Based on the 1987 Delineation Manual, wetlands were identified using three criteria: hydrophytic vegetation, wetland hydrology, and hydric soils. All three criteria must be present for an area to be delineated as wetland.” Thus, deleting the term “jurisdictional.”

Response: The Final EIS has been revised to clarify this statement.

PURPOSE AND NEED (PN) COMMENTS

PN-1

Comment: The DEIS lists 5 parts for the need, or underlying problem. We believe Parts 1, 4, and perhaps 5 are the need. The others, that Coal Creek Channel needs to be modified and stabilized, and that irrigation diversion needs to be reconstructed and relocated, are alternatives to meet the need.

Response: Section 1.4 in the Final EIS has been revised to clarify the need for the project. This clarification includes modifying bullets 1 and 5 and eliminating bullets 2 and 3.

PN-2

Comment: The purpose and need should be re-written to eliminate the alternatives included in the 5-part “need” statement.

Response: See Response to PN-1.

RIPARIAN/WETLANDS (WT) COMMENTS

WT-1

Comment: The cumulative impacts section does not analyze what the riparian area ecosystem was before modifications and compare it to what it is and what it has been.

Response: The Final EIS has been revised to provide this additional information.

WT-2

Comment: There is no discussion of restoring the riparian area to its natural state. This should be discussed.

Response: Restoring the riparian area to its "natural" pre-development state is infeasible. The degree of urban and agricultural development along Coal Creek prevents restoration of both its historic meander pattern and historic floodplain. Additionally, this type of restoration is outside of the scope of the decisions for this EIS (See Section 1.5 of the Draft EIS). Section 2.3.10 in the Final EIS discusses why this alternative was eliminated from detailed analysis.

WT-3

Comment: The cumulative impacts analysis should address what the area was like previous to development, and whether the cumulative impacts on the riparian area have been significant enough to warrant some mitigation.

Response: Cumulative impacts are to address incremental impacts from the proposed action when added to other past, present, and reasonably foreseeable future impacts. Over the last 150 years, Coal Creek has been substantially impacted by the construction of irrigation diversion and drop structures and the diversion of irrigation waters to the surrounding areas. During this time, development has also encroached on the channel, effectively limiting its ability to migrate across the alluvial fan. The proposed project would provide some mitigation for past impacts to Coal Creek. These mitigations would include bank stabilization and/or revegetation at various reaches of the stream. However, full restoration of Coal Creek’s historical conditions is both infeasible and outside of the scope of this project (See Response to WT-2).

WT-4

Comment: The use of soil cement should be used as a last resort with regard to bank stabilization methods. There are other methods of stabilization, which effectively use both rock and riparian plantings. Stone protection along the toe slop of the bank has been successfully used with willow or other shrub tree plantings.

Response: The NRCS concurs. See response to Comment AT-15.

WT-5

Comment: Any constructed levees should be set back away from the channel as far as possible.

Response: In an effort to maintain the sediment conveying capacity of the channel during high discharges and to accommodate channel maintenance activities, it is desirable that new levees be constructed such that they become part of the main channel bank to form a trapezoidal channel. Since the flood control improvements will be constructed to convey runoff from a flash flood, the channel should be designed with a fairly constant cross section to avoid excessive sedimentation. Therefore, the NRCS supports designing new levees to be an integral part of the flood control channel.

WT-6

Comment: Designs for the parkway should take into consideration the natural tendency of the channel to migrate laterally. If the channel migrates and threatens a trail, the trail should be relocated.

Response: The natural tendency of the channel to migrate naturally is already currently compromised by the existing development along its banks. This includes the existing parkway trail, the existing road going up Cedar Canyon, and existing residential and commercial development along the stream channel. Accordingly, in order to meet the project purpose and need to protect these properties and human health and safety, the proposed channel design can allow only minimal lateral migration, most of which would be in the upper reaches of channel from the existing CCC diversion to the approximately ½ mile downstream of the mouth of Cedar Canyon (See Response to WT-2).

WT-7

Comment: We recommend that you include all materials necessary to meet the Corps' minimum standards for wetland delineations and permit applications (please contact the Corps for more details). However, based on the CH 3 contents, it appears that the project is currently conceptual. When Cedar City pursues its Section 404 Permit, it should apply for bank stabilization activities and diversion replacements/upgrades as a single and complete project.

Response: The commenter is correct in that the project design is still conceptual. The details requested will be included as part of the Section 404 permit application when it is submitted to the Army Corps of Engineers.

WT-8

Comment: The Corps highly favors the retention of the riparian tree and shrub community to the maximum extent practicable in order to manage in-stream water temperature and maintain some migratory bird habitat value. This should be included in the mitigation measures under Section 3.5.4.2.

Response: Section 3.7.3.2; 3.7.4.2; and 3.7.5.2 propose mitigation that includes revegetation with native riparian species. These sections of the Final EIS have been revised to clarify that this mitigation measure includes the retention of existing riparian trees and shrubs wherever possible.

WT-9

Comment: In Section 3.7, 4th paragraph there are two different issues here that could use some clarification: 1) meeting the wetland criteria for an area to be classified as a wetland, and 2) wetlands and other waters of the U.S. being within the Corps' jurisdiction. The Corps recommends adding the last sentence (below) and changing to read:

The areas delineated as wetlands that are considered in this EIS that meet all three USACE criteria for a wetlands determination. The three criteria that must be met include:

1. the dominance of wetland plants (hydrophytes),
2. the presence of sufficient hydrology to support wetland plants and maintain hydric soils, and
3. the occurrence of hydric soils, which become established over a period of time through continuous wetting and drying cycles.

These wetlands are under USACE jurisdiction because they are adjacent to the Coal Creek, a waterway with ties to interstate or foreign commerce.

Response: The Final EIS has been revised to include these recommendations.

WT-10

Comment: There is some inconsistency between Chapter 2 and what is proposed for riparian protection in Sections 3.7.4.2 and 3.7.5.2. There is no mention of hard bank stabilization such as the use of riprap or stone protection of the banks' toe slopes.

Response: Sections 3.7.3.2; 3.7.4.2; and 3.7.5.2 have been revised to establish the context of the suggested mitigation measures in comparison to the bank hardening proposed as part of these alternatives.

WT-11

Comment: Riparian areas that are currently intact in the area should be preserved or enhanced as part of this project. If impacts to riparian habitat do result from project structures or activities, these activities should be mitigated in place where possible, or in adjacent areas which are in need enhancement due to previous impacts.

Response: The Final EIS will include additional details on mitigation measures to clarify that preservation and enhancement of existing riparian habitat has been a priority wherever possible, while still meeting the project purpose and need.

WT-12

Comment: The DEIS states that the parkway construction may result in a "possible net reduction in existing riparian wildlife habitat in the project area." Riparian habitats, even in urban areas, are important public resources. We recommend that parkway construction be completed in such a way that impacts to riparian vegetation are minimized.

Response: The Final EIS includes mitigation measures to maximize the preservation of existing riparian resources (See Sections 3.7.3.2, 3.7.4.2, and 3.7.5.2). However, it should be noted that riparian resources along those reaches of Coal Creek where the parkway would be constructed are generally sparse and in poor condition and provide marginal benefits in terms of either structural stability or habitat (See Sections 3.7.1.2 and 3.7.1.3 of the Draft EIS).

WT-13

Comment: In Section 3.7.5.2 (page 3-62) the paragraph states that "...mitigation could include" minimum instream flows and riparian vegetation reestablishment. NRCS should commit to revegetation and reclamation of riparian areas as well as minimum instream flows as important components of this project.

Response: The mitigation measures in the Draft and Final EIS are suggested mitigation measures only. The final decision on which mitigation measures has been required as part of the project implementation has been made by the Deciding Officer and disclosed in the project ROD. The comment has been noted and has been included as a factor that has been evaluated as part of the decision-making process.

WT-14

Comment: With regard to bank stabilization, natural vegetation should be used above the "hard" stabilization for aesthetics and wildlife habitat.

Response: To the extent that is practicable, natural vegetation will be planted above “hard” bank stabilization. See Response to Comment AT-15. This corridor will also serve as a parkway and it should be aesthetically pleasing and provide some habitat for wildlife.

SOILS/WATERSHED/FLOODPLAIN (SW) COMMENTS

SW-1

Comment: The document should include whether the stream morphology downstream of the project will change. Given the upstream alteration, change seems likely. These impacts are important and need to be documented.

Response: Downstream of the Main Street Irrigation Diversion Structure the Coal Creek channel is basically a trapezoidal flood control channel. At about 1000 North, the Woodbury Diversion Structure divides flood discharges and conveys a significant portion of the flood through the Quichapa Channel to Quichapa Lake. West of I-15, the Coal Creek Channel and the Quichapa Channel are primarily used for irrigation. Neither of these channels has capacity to convey their respective portions of the proposed design flows without flooding. The Quichapa Channel is man-made and a flood would likely result in significant bank erosion as well as some head cutting, particularly south of U-56. The primary stream morphology of Coal Creek west of I-15 is man made. The section of channel between I-15 and Airport Road is regularly dredged and does not have any natural morphology. At airport road there is another irrigation diversion and bifurcates flow in Coal Creek. It is unlikely that the proposed project will significantly affect the stream morphology west of I-15.

SW-2

Comment: New diversion structures should be designed so as to allow passage of sediment through the system. The loss of sediment in the system will result in scour and down cutting of the stream channel.

Response: The proposed new Main Street Diversion Structure (Alternative C) would have the capacity to divert approximately 100 cfs out of Coal Creek and into irrigation systems. Most of the bed load (sands and gravels) would be sluiced back into Coal Creek to avoid channel degradation due to erosion. The diversion should not be operated during significant flood events, allowing cobbles, sand, gravel, and suspended sediment to remain in the flowing water and minimize scour and downcutting.

SW-3

Comment: In Figure 1 of Appendix C (Wetland Delineation Report), the soil mapping unit numbers need to be correlated to the soil descriptions in Appendix B of the Delineation Report.

Response: The figure and appendices in the Delineation Report have been correlated.

SW-4

Comment: In Appendix C, page C-13, The hydric soils definition in the first paragraph should be changed to use the most current definition. The definition of a hydric soil is a soil that formed under conditions of saturation, flooding or ponding long enough during the growing season to develop anaerobic conditions in the upper part. The concept of hydric soils includes soils developed under sufficiently wet conditions to support the growth and regeneration of hydrophytic vegetation. Soils that are sufficiently wet because of artificial measures are included in the concept of hydric soils. Also, soils in which the hydrology has been artificially modified are hydric if the soil, in an unaltered state was hydric. Some series, designated as hydric, have phases that are not hydric depending on water table, flooding, and ponding characteristics.

Response: Appendix C of the Final EIS has been revised to incorporate this information.

SW-5

Comment: Growth pressures should have been taken into account when adjusting the 100- and 500-year floodplains, but this is not clear in the document. Please clarify whether the population growth changes were taken into account when determining water quality and flooding.

Response: Population growth is not a factor in determination of the 100- and 500-year floodplains. These floodplain projections are determined based on topography and flow data. Population growth does not affect the physical extent of these floodplains. However, growth may increase the risk of potential property damage or human health and safety that a 100- or 500-year flood could cause. These potential impacts are disclosed as part of 3.13.9 of the Draft EIS.

VEGETATION (VG) COMMENTS

VG-1

Comment: Native species for both bank stabilization and use in the parkway should be used. Furthermore, native species along the parkway should be drought tolerant and require little or no irrigation.

Response: Your suggestion regarding the use of drought-tolerant native species for revegetation has been incorporated into Sections 3.6.3.2; 3.6.4.2; and 3.6.5.2 of the Final EIS. See also Responses to Comments AT-14 and WT-13.

VG-2

Comment: If nonnative species are used for revegetation in reaches A-F, they should be noninvasive species and appropriate for adjacent land use activities.

Response: Your suggestion regarding the clarification on the criteria for using noninvasive species for revegetation has been incorporated into Sections 3.6.3.2; 3.6.4.2; and 3.6.5.2 of the Final EIS.

VG-3

Comment: Each alternative in the EIS should incorporate measures that result in a net increase in riparian vegetation through revegetation of areas impacted by project activities.

Response: The project goal is to either maintain or increase riparian habitat quality wherever possible. However, it should be noted that a net increase in riparian vegetation will not always be possible given the existing channel and floodplain constraints, combined with the project need to ensure a stable channel that can pass the projected 100-year flood. See also response to comment WT-2.

WATER RESOURCE (WR) COMMENTS

WR-1

Comment: More analysis of projected bed loads and high-flow velocities in Section 3.5, Surface and Groundwater Resources or under Wetlands and Riparian Resources.” Specifically, approximate flow velocities in each of the 6 ‘sub-reaches’ should be identified. This data is necessary to determine the possibilities for bank protection within the project area.

Response: The average channel velocities during the 100-year cloudburst storm in the 6 identified sub-reaches of the Coal Creek project area have been estimated from the hydraulic model created for this project.

The following table summarizes the average channel velocities through each reach of the study area during a 100-year cloudburst flood.

Sub-Reach	Average Velocity (fps)
A	12.0
B	12.0
C	10.6
D	10.8
E	10.6
F	7.7

These high flow velocities make it clear that some type of reliable channel armoring would be required to stabilize the channel, particularly the channel banks (see Appendix E).

WR-2

Comment: Keep as much water in the stream as possible.

Response: See Response to Comment WT-13.

WILDLIFE (WL) COMMENTS

WL-1

Comment: There are several species discussed in the document that do not have known habitat within the project area. It is unclear if the species had lived there in the past before the creek was altered. Please clarify.

Response: Those species discussed in the document that do not currently occur in the project area of impact are species that are special status species that are known to occur in Iron County (See Table 3.12 in Section 3.8 of the Draft EIS). Because of the sensitive nature of these species and the fact that they occur in the region where the project is occurring, the Section 7 consultation process requires a disclosure of the potential for impacting these species. It is possible that some of them may have occurred in the project area some time in the past, but there is not reliable record of that. Section 3.8 serves as an introduction to clarify which species would be carried forward for detailed analysis in Section 3.8.3 Environmental Consequences of the Draft EIS.

WL-2

Comment: In Table 2.1, as written, the impacts to riparian habitat appear to be significant, since, “In the middle lower reaches, proposed levees would impact 2,231 linear feet of stream channel riparian vegetation...” and “Along the upper reach, approximately 6,988 linear feet of stream channel riparian vegetation would be disturbed...” Are these significant impacts taken into consideration in the analysis?

Response: Yes they are. It should be noted that the existing quality of this habitat is generally poor and that construction on this amount of channel would not impact a corresponding amount of vegetation. Typically, vegetation coverage in these areas is spotty at best (See Sections 3.7.1.1, 3.7.1.2, and 3.7.1.3 of the Draft EIS). Table 2.1 of the Final EIS has been revised to clarify this. Additionally, mitigation measures to preserve, wherever possible, any existing riparian vegetation, particularly woody species like willow and cottonwood, have been added to Section 3.7.3.2, 3.7.4.2, and 3.7.5.2. This mitigation would include the preservation and replanting of riparian species in all areas that do not require hard stabilization. Those areas that are proposed for hard stabilization in these reaches do not currently have woody riparian vegetation because they are generally characterized by steep undercut banks with no riparian vegetation.

WL-3

Comment: In table 2.1, Under Alternative B, Pkwy B1, Wildlife and TES, the linear feet of impacts to riparian habitat described in the Wetland and Riparian row should be translated into temporary and permanent losses of migratory bird habitat along the creek.

Response: Table 2.1 and Section 3.8.4.1.7 of the Final EIS have been revised.

WL-4

Comment: Under Section 3.8.4.1.1, the FWS would interpret removal of bald eagle roosting site as a direct impact and not “indirect” as the text states. Any impact should be addressed under Section 7 of the ESA. The final EIS should also describe how impacts would be mitigated as part of the proposed project.

Response: Section 3.8.4.1.1 of the Final EIS has been revised to incorporate this information. Mitigation measures have been added to Sections 3.8.4.2 and 3.8.5.2.

WL-5

Comment: Under Section 3.8.4.1.7, the text states that existing neo-tropical migratory bird habitat would be removed as part of the project action for this alternative. The final EIS should state that this type of impact has been mitigated as part of the proposed project and describe possible mitigation measures.

Response: The Final EIS has been revised to incorporate mitigation measures to specifically address impacts to neo-tropical migratory bird habitat (see Sections 3.8.4.2 and 3.8.5.2).

WL-6

Comment: Under Section 3.8.4.2, the text states that mitigation measures “could include the following.” NRCS should ensure that project alternatives include compensatory mitigation for all unavoidable losses to fish and wildlife resources.

Response: See Response to Comment AQ-7.

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